

Drug-taking Habits among School Children in Ireland

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STUDIES of the epidemiology of drug-taking can be carried out by two procedures each of which has its advantages and limitations. The first procedure depends upon the clinical diagnosis of drug-taking. In consequence of the accurate clinical diagnosis of the jaundice associated with intravenous administration of the drug (Marks and Chapple, 1967), de Alarcon and Rathod (1968) were able to detect heroin taking in the population in Southern England. The incidence of drug-abuse can also be investigated by examining urine samples for specific drugs. Urinary samples have been analyzed for amphetamines among subjects in Remand Homes (Scott and Willcox, 1965; Cockett and Marks, 1969; Lancaster and Rockley, 1970) and these studies have demonstrated the incidence of amphetamine taking in particular populations. These procedures for measuring the epidemiology of drug abuse have the advantage of accurate detection of drug taking provided that the diagnostic methods are sufficiently sensitive to detect the drugs under survey.

The second procedure involves assessment of the incidence of drug-taking in selected populations by personal interviews or questionnaires. The incidence of drug taking has been studied by personal interview among school-children in U.S.A (Schofield, 1965), among University students (Hindmarch, 1970), in out-patient clinics (Anumonye and McClure, 1970), and in remand prison (d'Orban, 1970). Personal interview and survey of records has been used by Probation Officers in Britain to study the types of drugs taken, and the characteristics of the subjects who took them, among individuals convicted of drug offences (Standing Committee on Drugs, 1969). Backhouse and Pierce-James (1970) used the interview method to study the incidence of drug-taking among boys admitted to a detention centre in Southeast England. Another method is to use questionnaires to study the incidence of drug-taking. Whitehead, Smart and Laforest (1970) employed this method among high school children in Canada particularly in relation to the use of cannabis. These investigators also made observations on the sex-ratios of drug-takers and the epidemiology of drug-taking among their subjects (Smart, Laforest and Whitehead, 1970; Whitehead, 1970). In all the studies in which the second procedure has been used, the reported figures for the incidence of drug-taking are probably under-estimates of the actual figures. Against this limitation in relation to the accuracy of the results must be contrasted the fact that larger populations can generally be studied in more detail than when clinical or chemical diagnostic procedures are employed for measuring the epidemiology of drug abuse.

Drug-taking had not been investigated by questionnaire or interview procedures among the general population of children aged 14-16 years in Great Britain (Backhouse and Pierce-James, 1970) until Wright (1970) reported the first study on school children in Wolverhampton. However, drug abuse was investigated among Irish school children in the Spring of 1970 by questionnaire (Nevin et al, 1971), and Wilson (1971a) has compared the incidence of amphetamine-taking among boys in custodial institutions in Ireland during the period 1969-1970

with the extent of drug abuse among Irish school children in 1969. The present study reports the results from a survey on drug-taking carried out by the questionnaire procedure on school children in Dublin. Children above the age of 14 years were included from sixteen schools catering for both sexes, and different religious denominations.

Subjects and Methods

The Questionnaire. A questionnaire was designed for distribution to children aged from 14 years up to the maximum age in the schools. Spaces were provided for coded information about the name, religious denomination and geographic localities of the schools, and sex of the children. Drugs of addiction were defined at the beginning of the forms, and the children were requested to answer eleven questions by filling in, or ticking the appropriate boxes as directed. The first two questions required information about sex and birth date. Space was provided to write down the names of ten drugs in the third question. The remaining eight questions were designed to obtain factual information about drug-taking and sources of drugs, and information about attitudes towards drug-taking. These questions all required Yes or No answers for which boxes were provided (Table I). Question 9 enquired whether, in relation to himself, the child thought that drug taking could do him any harm. It contained three supplementary questions about the adverse or pleasant effects thought to be produced by drugs. These requests were designed so that the third supplementary answer could be given in such a way that it contradicted the information provided in the main question if the questions were not read carefully. Space was available on the forms for providing 79 items of direct or coded information so that all the information on each form could be transferred to one computer card.

Distribution of the Questionnaires. The questionnaires were distributed to children in secondary schools in Dublin, and to one school in a town forty miles south of Dublin. The questionnaires were distributed in each school to the children in their different classes simultaneously. The head teacher had previously defined drugs of addiction as specified at the top of the questionnaire, told the children to answer all the questions without discussion between themselves, seal them into the envelopes when they had finished, and return the sealed envelopes to the form teachers. The envelopes were returned to the University, and the forms were sorted, coded where necessary, and the data was transferred to punch-cards and analyzed in the computer. The questionnaires were distributed to 16 schools. Nine Protestant, one Catholic and one Jewish school filled in the questionnaire between 23rd April and 17th June 1969, and five more Catholic schools completed them during November 1969.

Results

Three thousand four hundred and twenty two completed questionnaires were returned from the schools. Seventy eight, or 2.5 per cent of the completed questionnaires, were rejected during sorting and coding on account of incomplete information because all the questions were not answered, or because the information regarding age or sex was faulty. Completed questionnaires giving contradictory information in the answer to question 9 about the adverse effects of drugs of addiction were also among those excluded.

Factual information about knowledge of drugs was provided from the answers to the request for the names of drugs of addiction. A list of 78 names was provided by the total sample of children. The names have been classified as official and proprietary, and as slang and unknown names in Table II. The named drugs have also been divided into dependence and non-dependence producing varieties. Of the named drugs, 19.2 per cent were not dependence producing. Among official and proprietary names, penicillin, sex hormones, the pill and cortisone were mentioned. Barbitones, aspirin and Librium were classified as analgesic and sedative preparations, and ephedrine and caffeine as named central nervous stimulants.

Factual information about drug-taking habits was obtained by the answers to questions 8, 5 and 7. These elicited the numbers of children who stated they had tried drugs, how many children knew individuals who had tried drugs, and the numbers knowing a source of drugs. Attitudinal information about drug-taking was obtained from the answers to questions 11, 4, 6 and 10. The numbers of children in the total sample giving affirmative answers on these questions are shown in Table III. The answers to the questions have been arranged in increasing numbers of positive answers. The results are also presented as percentages of the total sample and have been subdivided by sexes. In order to evaluate the relationships between the numbers, the value for question 8, 'ever taken' has been reduced to unity, and the other values have been adjusted correspondingly. These values are expressed as ratios in Table III.

82.5 per cent of the sample consisted of boys. 2.8 per cent of the total sample admitted to having taken drugs at any time. A larger proportion of the boys than of the girls have been involved in drug-taking. Since the total sample consisted predominantly of boys, the incidence of drug-taking in the schools included in the survey, was unduly biased by the higher incidence in the male element. Just over 3 per cent of the children stated that, having taken drugs, they would like to talk confidentially about it to an adviser. This attitude was more pronounced among the boys than the girls. A slightly higher percentage admitted to taking drugs on the assumption that they could talk confidentially to an

Table I

Definition and questions included in the Irish Secondary School Drug Questionnaire.

Definition:

The questions refer to drugs of addiction defined as drugs which are consumed apart from medical need, or increasing quantities, and which produce a wished for mental effect.

<i>Question No.</i>	<i>Type I Factual Information</i>
3	Please write down the names of any drugs of addiction of which you have heard.
8	Have you ever taken any of these drugs yourself?
5	Do you know anyone who is taking any of these drugs?
7	If you wanted to obtain any of the drugs you have mentioned, do you know where you could get them?
<i>Question No.</i>	<i>Type II Attitudinal Information</i>
11	If you have taken any of these drugs would you like to talk confidentially to a priest, or a doctor or an experienced social worker or a clergyman about it further?
4	Would you like to try any of these drugs?
6	Do you think that there is a drug problem in Ireland?
10	Do you think you should be taught something about the effects of drugs of addiction?

Table II

Classification of 'Drugs of Addiction' defined by school children. Total number of names: 78.

Classification by Drug Classes

Class	No. of Drugs	Class	No. of Drugs
Official and Proprietary Names	39	Dependence Producing	48
Slang Names	21	Non Dependence Producing	12
Unknown Teenage Names	15	Probably Dependence Producing	15
General Names	3	Non specific	3

Table III

Numbers of children giving affirmative answers to questions.

Sample	Complete Sample			Boys		Girls	
	Total	%Total	—	Total		Total	
Sample	3,344			2,759		585	
% of Total	100	100		82.5		17.5	
Questions	Total	% Total		% Total		% Total	
		Total	Ratio	Total	Ratio	Total	Ratio
8 Ever taken?	94	2.8	1.0	2.9	1.0	2.1	1.0
11 Like to talk?	115	3.4	1.2	3.6	1.2	1.9	0.9
4 Like to try?	457	13.7	4.9	15.1	5.2	7.2	3.4
5 Know anyone?	744	22.2	7.9	22.4	7.7	23.3	11.1
7 Obtain?	1,108	33.1	11.8	34.9	12.0	26.8	12.8
6 Problem?	2,853	85.0	30.3	86.1	30.0	83.1	20.8
10 Taught?	3,164	94.5	33.6	92.9	32.0	97.5	46.4

adviser (question II) than were prepared to state directly that they had taken drugs (question 8). Analysis of the positive answers in relation to the religious denominations of the schools demonstrated that 3.8 per cent of the boys at Catholic schools and 2.9 per cent of the boys at Protestant schools gave positive answers to question 11, and 2.5 per cent of the Catholic boys and 4.2 per cent of the Protestant boys gave positive answers to question 8. Both questions implied that drugs had been taken and therefore the mean number of positive answers to both questions probably gives a more correct estimate of the numbers of drug takers in the two types of school, namely, boys admitting to having taken drugs at Catholic schools: 3.2 per cent, and at Protestant schools: 3.6 per cent.

Almost 14 per cent of the children stated that they would have liked to try drugs but this desire was more than twice as great among the boys than the girls. Just over one-fifth of the total sample knew someone who had taken drugs and one-third knew where to obtain them. About 85 per cent considered that there is a drug problem in Ireland, and 95 per cent considered that they should be taught something about the effects of drug of addiction. This desire to be taught was slightly greater among the girls than the boys. On the assumption that the knowledge about drugs emanated from the children who had already taken drugs in the schools, then the ratios shown in Table III demonstrate the extent of spread of knowledge about drug-takers and sources of drugs in school communities. The order of arrangement of the answers to the questions indicates the degree to which information elicited from one child about his drug- taking experience is capable of extending through the community at risk, and the impact which it has on the development of attitudes about drug taking.

Discussion

The questions were designed in order to obtain information concerning the children's knowledge about the identity of the drugs considered to be drugs of addiction, and about their personal experience and knowledge of the sources of drugs. The questions about attitudes to drug-taking provided information which was correlated with the factual information but also provided supplementary information about how the children reacted to problems associated with drug-taking.

Of the 78 names which were presented as drugs of addiction, almost 62 per cent of the identified names referred to compounds which were capable of producing dependence. Twenty per cent of the names could not be identified but probably consisted entirely of local slang teenage names referring to LSD and cannabis which are used predominantly in Dublin. Twelve of the names, 15 per cent of the total, referred to identified drugs which do not produce dependence.

The children's knowledge of drugs capable of producing effects of a desired euphoric nature was more than 60 per cent correct. The children were however incorrect in identifying 15 per cent of the names as those of drugs able to produce euphoric effects. Knowledge about the drugs was probably derived from parents who were taking the drugs for therapeutic reasons, and the children misidentified them as drugs of addiction. It is unfortunate that the children did not have the correct information that these drugs are properly used for therapeutic purposes, and are not drugs of addiction. Sex hormones and the pill were classified as drugs of addiction. In that the Protestant schools receive instruction from Youth Counsellors from the Marriage Counselling Service of Ireland, and Catholic schools also receive Counselling instruction, it is probable that the children had some knowledge about the correct social, as opposed to medical, use of these drugs.

A higher percentage of the boys than of the girls had taken drugs. Whitehead (1970) reported a similar finding among adolescent school children in Halifax. An alternative method of exploring the relationship between the answers to the questions is to make the assumption that the knowledge about drugs, and attitudes towards drug problems, emanates from the drug-takers in the schools. If the number of children admitting to having drug experiences is reduced to unity and the numbers giving positive answers to the other questions are correspondingly reduced, then the range of communication of each drug-user to his colleagues can be demonstrated. Each boy who had taken drugs stimulated five of his friends with the desire to try drugs, and each girl had induced more than three of her friends to want to emulate her. Each boy had told about eight other boys about drug-taking, but each girl had spread the information among eleven of her colleagues. Boys and girls had each told about twelve or thirteen of their friends where drugs could be obtained. If this is applied to the questions dealing with the existence of a drug problem, and the desirability of teaching about drugs, then considerable differences in the attitudes of the boys and girls become apparent. The same numbers of boys consider that there is a problem and teaching is desirable, but smaller numbers of girls than boys consider that a problem exists, and more girls want to be taught about the effects of drugs.

The method of percentage analysis provides factual information about drug-taking and information about attitudes to drug-taking in school populations, and enables comparisons between schools to be made. As pointed out by other investigators, the questionnaire method probably underestimates the incidence of drug abuse. The method enables comparisons to be made between the sexes, and religious influences, on the incidence of drug-taking and the attitudes of the children towards it. The method of unit analysis per drug-taker enables the influence of drug-takers on drug-taking in the schools, and attitudes towards drug-taking, to be measured. The latter form of analysis depends for its accuracy on the assumption that knowledge about drug-taking in the schools emanates entirely from the drug-takers. This is probably not entirely true among the elder children and its consistency may vary from school to school.

The results demonstrate that drug experience is taking place among 3 per cent of the secondary school population in Dublin above the age of thirteen years and that the pupils have developed well formulated attitudes towards drug-taking. The figure of 3 per cent corresponds to that reported for drug abuse among American High School children in 1964 (Schofield, 1965). It is less than the figure of approximately 4.5 per cent reported as the incidence of abuse for a similar range of drugs among High School children in Eastern Canadian Cities in 1965-9 (Smart, Laforest and Whitehead, 1970). Comparison of these figures suggests that an increase in the incidence of drug-taking can be anticipated among Irish school children during the next three years comparable to that which has occurred in North America during the past five years. The situation and prognosis regarding drug abuse in Irish secondary schools is at present precisely comparable to the position regarding amphetamine abuse in the general population in 1966 (Wilson, 1967, 1968a, 1969, 1971b). The Irish Government effectively controlled the escalation of amphetamine abuse in 1970. It appears that the time has now come for the Government in

Ireland to take effective measures to control further escalation of drug abuse in the secondary schools.

From an educational point of view, the approach to the problem of drug abuse should be adjusted according to the school and religious environment, and must be approached differently with respect to the sexes. It is however of prime importance to design an educational policy which is specifically directed towards preventing the fourteen children who would like to try drugs in each group of one hundred from emulating the three children who are already had drug experiences. The method for putting such a policy into effect must be based on a competent educational programme about the correct therapeutic use of drugs and the dangers inherent in their abuse (Wilson, 1968b). In schools the policy will depend on knowledge of how information about drug-taking spreads through the environment and of how local factors influence its spread. Ultimately the effectiveness of the educational policy will be based on a procedure directed towards reducing interest in the activities of the drug-users so that dissemination of knowledge about the pleasures of drug abuse, and the sources of drugs, is arrested. The effectiveness of such a procedure is dependent upon the encouragement of alternative interest in other, more desirable, activities, and the provision of facilities and manpower to promote this alternative interest.

Summary

A questionnaire was distributed among 3,344 school children in and near Dublin to obtain information about their drug taking habits, and attitudes towards drug abuse. Seventy-eight 'drugs of addiction' were named by the children in the nine Protestant, six Catholic and one Jewish school included in the survey. 19.2 per cent of the named drugs were not dependence producing. 2.8 per cent of the total sample admitted to having taken drugs, and 14.7 per cent stated they would like to try drugs. More than one-fifth of the children knew someone taking drugs and one-third knew where to obtain them. A higher percentage of the boys than the girls knew where to obtain drugs, and children from schools of different religious denominations responded differently to the questions. The dissemination of knowledge about drugs through the schools was analyzed. The incidence of drug-taking in Irish schools is at present lower than that reported from America. It is concluded that the incidence of drug-taking in Irish secondary schools will escalate within the next three years unless effective Government action is taken to reduce interest in drugs among the children by providing alternative more socially desirable activities.

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